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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,018	10/17/2001	Hideki Takauchi	100021-00062	3806

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ARENT FOX KINTNER PLOTKIN & KAHN, PLLC  
Suite 600  
1050 Connecticut Avenue, N.W.  
Washington, DC 20036-5339

EXAMINER

NGUYEN, MINH T

ART UNIT PAPER NUMBER

2816

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant(s)

09/978,018

Applicant(s)

TAKAUCHI ET AL.

Examiner

Minh Nguyen

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10-17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 13 January 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicants' response filed on 7/7/03 has been received and entered. Claims 1-8, 10-17 and 19-23 are pending. New grounds of rejections necessitated by the amendment are set forth below. This action is FINAL.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-6, 8, 10-15, 17, 19-23 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,297,677, issued to Ang et al.

As per claim 1, Ang discloses a termination resistor circuit (Fig. 16), comprising:

a first termination resistor block (FETs 1610 and 1630) having a first diode connected transistor 1610 and a second not-diode connected second transistor 1630;

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a second terminal resistor block (FETs 1630 and 1620) having the second transistor 1630 and a third transistor 1620 which is not diode connected transistor;

the blocks are connected at terminals (drain and source, as shown) of the second transistor 1630; the recited limitation on the last two lines is merely the operation of the termination resistor circuit, since Ang has the same structure, the recited limitation is met.

As per claim 2, FETs 1610 and 1630 are both NFETs, and FET 1620 is PFET.

As per claim 3, Ang discloses a termination resistor circuit (Fig. 16), comprising:

a first termination resistor block (FETs 1610 and 1630), the gate of the first transistor 1630 being applied with a reference voltage VDD0 and the gate of the second transistor 1610 being *not* applied with the reference voltage VDD0 (as shown);

a second terminal resistor block (FETs 1610 and 1620) having the second transistor 1610 and a third transistor 1620 whose gate is *not* applied with the reference voltage ( $VSS < VDD0$ );

the blocks are connected at terminals (drain and source, as shown) of the second transistor 1610; the recited limitation on the last two lines is merely the operation of the termination resistor circuit, since Ang has the same structure, the recited limitation is met.

As per claim 4, FETs 1610 and 1630 are both NFETs, and FET 1620 is PFET.

As per claim 5, rejected for the same reasons noted in claim 1.

As per claim 6, in column 15, lines 36-67, Ang teaches FETs having different sizes.

As per claim 8, rejected for the same reasons noted in claim 6.

As per claim 10, this claim is rejected for the same reasons noted in claim 1, and further, the limitations recited on the first five lines are explicitly disclosed in the Ang's abstract and shown in Fig. 1.

As per claim 11, rejected for the same reasons noted in claim 2.

As per claims 12-13, rejected for the same reasons noted in claims 3-4, respectively, and further, the limitations recited on the first five lines are explicitly disclosed in the abstract and shown in Fig. 1.

As per claims 14-15 and 17, rejected for the same reasons noted in claims 5-6 and 8, respectively, and further, the limitations recited on the first five lines are explicitly disclosed in the abstract and shown in Fig. 1.

As per claims 19-20, rejected for the same reasons noted in claims 1-2, respectively, and further, the limitations recited on the first five lines are explicitly disclosed in the abstract and shown in Fig. 1.

As per claims 21-22, rejected for the same reasons noted in claims 3-4, respectively, and further, the limitations recited on the first five lines are explicitly disclosed in the abstract and shown in Fig. 1.

As per claim 23, rejected for the same reasons noted in claim 1, respectively, and further, the limitations recited on the first five lines are explicitly disclosed in the Ang's abstract and shown in Fig. 1.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,297,677, issued to Ang et al.

As per claim 7, Ang teaches the termination resistor circuit having FETs with different sizes as discussed in 6 but he does not explicitly disclose the FETs having the same sizes as called for in the claim.

However, the practice of varying the sizes of FETs to obtain the optimal and/or required condition for a certain applications is well within the level of one skilled in the art.

It would have been obvious to one skilled in the art at the time of the invention was made to use the first, second and third FETs in the Ang circuit having the same size. One skilled in the art would be motivated to do so when the application which uses the Ang circuit does not require a particular chosen weight.

As per claim 16, same as claim 7.

#### ***Response to Arguments***

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is 703-306-9179. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 703-308-4876. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

 9/16/03

Minh Nguyen  
Primary Examiner  
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